

# DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND BUILDING PERMIT



2

6

This is to certify that KERRY M DRACH

Job ID: 2011-08-2065-ALTCOMM

Located At 132 PLEASANT ST

CBL: 039- G-006-001

has permission to Install a 2Carrier Air Conditioners at the exterior rear of the building &1 Prestige Triangle Tube water heater provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED. A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

**Fire Prevention Officer** 

Code Enforcement Officer / Plan Reviewer

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY PENALTY FOR REMOVING THIS CARD

FILL IN AND S	En with Int Extend 3/23/12 (3)
APPLICATION HEATING OR POV	
To the INSPECTOR OF BUILDINGS, PORTLAND, ME. The undersigned hereby applies for a permit to instance accordance with the Laws of Maine, the Building Code of the O39 600 0 Location / CBL <u>130 - 132 Placent St</u> Name and address of owner of appliance <u>Nava Cram</u> <u>130 Placent St</u> . Portland, <u>Ma</u> Installer's name and address <u>Maxney</u> Pt tt 67	Hild 2012-42104 Il the following heating, cooking or power equipment in e City of Portland, and the following specifications: e A 2011-08-2065 -Use of Building Stugle Family Date 3/15/12 - Very Bussness Prech 14 Main St- Gerham, Me. Telephone 854-4969
Location of appliance: Basement    Floor Attic    Roof	Type of Chimney: Masonry Lined RECEIVED Factory built
Appliance Name: Carror + Triangle Tibe	<ul> <li>Metal</li> <li>Factory Built U.L. Asting Market</li> <li>Direct Vent</li> </ul>
U.L. Approved X Yes I No Will appliance be installed in accordance with the manufacture's installation instructions? X Yes I No IF <u>NO</u> Explain:	Type _ FUCUL# Type of Fuel Tank Oil Gas Dept. of Building Inspections Dept. of Building Inspections Size of TankCity of Portland Maine.
Image: Constant of Cons	Number of Tanks         Distance from Tank to Center of Flame         Cost of Work:       \$ <b>39,000</b> Permit Fee:       \$         170,00
Approved Fire: Ele.:	Approved with Conditions See attached letter or requirement
Bldg.: Signature of Installer White - Inspection Yellow - File F	Inspector's Signature Date Approved Pink - Applicant's Gold - Assessor's Copy

## City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2011-08-2065-ALTCOMM 2012-42106-HVAC	Date Applied: 3/23/2012		CBL: 039- G-006-001			
Location of Construction: 132 PLEASANT ST	Owner Name: CRAM-DRACH RENTA PROPERTY LLC	L	Owner Address: 136 PLEASANT S PORTLAND, ME	T 04101		Phone:
Business Name:	Contractor Name: Mainely Plumbing & Hea	ating	Contractor Add 674 Main St., Gort	ress: 1am, ME		Phone: (207) 854-4969
Lessee/Buyer's Name:	Phone:		Permit Type: HVAC			Zone: R-6
Past Use: Single family 1 <sup>st</sup> floor w/professional offices above	1 <sup>st</sup> floor s above – ditioner& e gas	Cost of Work: 300000.00 Fire Dept: Signature:	Approved w/a Denied N/A MA	ondhis	CEO District: Inspection: Use Group: R/L Type: HVAC	
Proposed Project Description HVAC – install air conditioner &	1: boiler		Pedestrian Activ	vities District (P.A.D.)		6/1/12
Permit Taken By:				Zoning Approva	1	( )
<ol> <li>This permit application of Applicant(s) from meetin Federal Rules.</li> <li>Building Permits do not septic or electrial work.</li> <li>Building permits are voi within six (6) months of False informatin may inv permit and stop all work</li> </ol>	does not preclude the ng applicable State and include plumbing, d if work is not started the date of issuance. validate a building	Special Zo Shorelar Wetland Flood Zo Subdivis Site Plar Maj Date: Or w	nd s one sion MinMM	Zoning Appeal Variance Miscellaneous Conditional Use Interpretation Approved Denied Date:	Historic Pr Not in Dia Does not Requires Approved Denied Date: 5	reservation st or Landmark Require Review Review I W/Conditions I W/Conditions
		3 23 CERTIF	ICATION		Dri	Judaws

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT

ADDRESS

DATE

PHONE

# BUILDING PERMIT INSPECTION PROCEDURES Please call 874-8703 or 874-8693 (ONLY) or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.
- Permits expire in 6 months. If the project is not started or ceases for 6 months.
- If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.

**Electrical Inspection** 

**Final Inspection** 

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.





Strengthening a Remarkable City, Building a Community for Life . www.portlandmaine.gov

Acting Director of Planning and Urban Development Gregory Mitchell

Job ID: 2011-08-2065-ALTCOMM

Located At: 132 PLEASANT ST

CBL: 039- G-006-001

# **Conditions of Approval:**

# Zoning

1. ANY exterior work requires a separate review and approval thru Historic Preservation. This property is located within an Historic District.

# Fire

- 1. Installation shall comply with City Code Chapter 10.
- 2. Fuel-fired boilers shall be protected in accordance with NFPA 101, Life Safety Code.
- 3. Installation shall comply with NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid Fuel–Burning Appliances*,
- 4. NFPA 54, National Fuel Gas Code;
- 5. NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems,
- 6. NFPA 91, Standard for Exhaust Systems for Air Conveying Vapors, Gases, Mists, and Noncombustible Particulate Solids,
- 7. NFPA 70, National Electrical Code; and the manufacturer's published instructions.

# Building

- 1. Equipment shall be installed in compliance with the manufacturer's specifications and the UL listing.
- 2. Application approval based upon information provided by applicant. Any deviation from approved plans requires separate review and approval prior to work.
- Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.
- 4. The installation must comply with the State of Maine Gas Regulations.

# Historic

 Air conditioning condenser units to be located in original proposed location (see Sheet M-1), behind the ramp on the back of the building. If the handicap ramp is not constructed as originally proposed, the condensors may be positioned directly behind the rear building elevation.





# Performance<sup>™</sup> Series *Carrier*

# Air Conditioners

turn to the experts



Energy-Efficient Air Conditioners with up to 16.5 SEER

# Innovation and the Environment

Over 100 years ago, a humble but determined engineer solved one of mankind's most elusive challenges by controlling the indoor environment. A



day, Dr. Willis Carrier would file more than 80 patents over the course of his

comfort career. His genius would enable incredible advancements in health care, manufacturing processes, food preservation, art and historical conservation, indoor comfort and much more.

Carrier's foresight changed the world forever and paved the way for over a century of once-impossible innovations. Yet in addition to being an accomplished inventor, he was also an avid outdoorsman. Carrier recognized the power and beauty of the natural environment. This appreciation of our world and its resources continues to guide Carrier Corporation today. We will never rest on our accomplishments, but instead consistently look for ways to improve our products, our environment and our world.

The Carrier<sup>®</sup> Performance<sup>™</sup> series air conditioners offer proof of this commitment by delivering energy-saving comfort in the environment that matters most - your home.



Leaders in Technology



# What Efficiency Means to You

Air conditioners are powered by electricity. You can compare efficiencies of different air conditioner models by checking the SEER (Seasonal Energy Efficiency Ratio) ratings, available through your Carrier dealer or manufacturer web sites. Using these ratings is a lot like miles per gallon for your car - the higher the number, the more efficient the product and the greater potential for savings. Actual air conditioner performance will vary depending on your home, comfort preferences and more.

The Performance series air conditioners offer efficiencies up to 16.5 SEER to provide the comfort you deserve and energy savings you can appreciate.





As an ENERGY STAR® partner, Carrier Corporation has determined that the Performance series air conditioners meet ENERGY STAR guidelines for energy efficiency.

Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet ENERGY STAR criteria. Ask your dealer for details or visit www.energystar.gov.



#### **Proven Performance**

The Performance<sup>™</sup> series air conditioners with scroll compressor deliver both comfort and reliability. The heart of your air conditioner system, this compressor runs smoothly to contribute quiet, efficient cooling.



#### **Environmentally Sound Refrigerant**

Carrier led the industry by incorporating non-ozonedepleting Puron® refrigerant into air conditioners back in 1996. Millions of Puron refrigerant units in operation today exemplify the reliability, durability and enduring quality of these products.



#### Lasting Durability

WeatherArmor<sup>™</sup> protection shields the outdoor unit from hail, errant soccer balls, lawn equipment and other hazards. Our combination of a galvanized steel cabinet, louvered steel coil guard and baked-on powder paint provides superior rust protection and keeps your system looking its best for years.

#### Quiet Operation

The Performance series air conditioners quietly cool your home with sound levels as low as 72 dBA. The aerodynamic top helps keep sound to a minimum by allowing smooth, efficient airflow through the top of the unit outside your home.





\* Per standard testing as described by ARI 270-95. Other sound levels, mentioned for comparison, as published at http://www.nided.nih.gov/health/education/teachers/common\_sounds.asp.

## It's About Your Comfort

The Carrier<sup>®</sup> Performance series air conditioners represent years of design, development and testing with one goal in mind – making you more comfortable. We have taken the lead in creating new technologies that deliver the comfort and efficiency you deserve while staying ahead of industry trends and global initiatives.

All year long, humidity affects the temperature at which you feel most comfortable. That's why Carrier Ideal Humidity System® technology plays such an important role in your comfort. When you add the Edge® programmable thermostat, Carrier humidifier and variable-speed furnace to the Performance series air conditioner, Ideal Humidity System technology allows you to control humidity levels even when your system isn't actively heating or cooling.<sup>+</sup> You'll feel cooler at higher temperatures in the summer and warmer at lower temperatures in the winter.



Ideal Humidity System technology continually monitors indoor humidity, indoor temperature and outdoor temperature, and has the ability to turn on your comfort system just for dehumidification.



#### Limited Warranty

To the original owner, Carrier Performance series air conditioners are covered by a 10-year parts limited warranty upon timely registration of your new equipment.\* Ask your Carrier dealer about optional labor warranties.

\*Warranty period is five years if not registered within 90 days. Jurisdictions where warranty restrictions are not allowed will automatically receive a 10-year parts warranty. See warranty certificate at carrier.com for complete details.

# Carrier<sup>®</sup> Systems for Unmatched Performance in Every Season

Willis Carrier's meticulous attention to quality and detail led to a major culture shift in the way we live indoors. More than a century later, Carrier Corporation operates with a unique willingness to develop new technology, the confidence to revise proven designs and the ability to deliver results with every new installation.

Part of that equation is our nationwide network of experts you can turn to for all of your indoor comfort needs. Your local Carrier dealer is well equipped to evaluate your home – everything from size, window placement, ductwork, venting and other structural specifics – and create a customized system designed around your lifestyle. So when it's time to make a choice for your family's comfort, make the best decision you'll ever make – Carrier – and let the experts do the rest.



# The Total Indoor Comfort System

Air Conditioner provides reliable, high-efficiency cooling for long-lasting comfort and energy savings.

Gas Furnace provides reliable, high-efficiency heating for long-lasting comfort and energy savings.

Evaporator Coil is matched with the proper outdoor unit to provide top heating and cooling efficiency and years of reliable service. Air Cleaner improves air quality by removing harmful and irritating airborne pollutants in your home.

Ventilator combines fresh outdoor air with conditioned indoor air for improved air quality and maximum efficiency – great for today's tightly constructed home.

Humidifier replenishes moisture to dry air.

Zoning sets different temperatures for up to eight different areas of your home for truly customized comfort and enhanced utility savings.

UV Lamp inhibits the growth of contaminants on the indoor coil, leaving your home with cleaner, fresher indoor air.

Edge® Programmable Thermostat allows precise temperature and humidity control along with programmable features to further customize your comfort.

Models 24ACC6, 24ACB3 © Carrier Corporation 5/2011 0:

01-824-056-25











www.carrier.com

1-800-CARRIER

A member of the United Technologies Corporation family. Stock Symbol UTX. Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring obligations. turn to the experts

# TriangleTube prestigeExcellence

# **High Efficiency Space Heating and Domestic Hot Water**



# **ALL-IN-ONE**

High Efficiency Condensing Stainless Steel Wall Mounted Gas Boiler with Built in **"Tank-in-Tank"** Indirect Fired Water Heater.

# Featuring TriMax Control

The Prestige Excellence Condensing Boiler incorporates a 14 gallon Indirect Fired Water Heater in the cabinet that is capable of producing 180 gph of domestic hot water.

### Features

- >> 96% AFUE Efficiency
- » Fully Modulating
- Abundant Domestic Hot Water with Supplied Mixing Valve
- Built-in Exclusive "Tank-in-Tank" Indirect Fired Water Heater
- >> Built-in 3 Speed System Circulator
- Standard Outdoor Reset
   60 Second EZ Setup
- » Graphical Display
- » Direct Vent/Sealed Combustion







### Brad Saucier - RE: 130-132 Pleasant St. install

From:Brad SaucierTo:Jim RobinsonDate:4/26/2012 10:42 AMSubject:RE: 130-132 Pleasant St. install

#### What needs to happen:

1. A \$50 fee for historic review needs to be received.

2. As part of the review, it needs to be notated @ the direct vent: **A**. WHERE on the building is the direct vent, and **B**. Picture(s) are needed of the current building (where the vent WILL go) with a little sketch to show where the vent will be.

4. NOTE: is this a REPLACEMENT or NEW CONSTRUCTION/PLACEMENT?

Once the above is received, I will forward this to historical review (it's already been passed by Zoning, conditional with historical approval.)

I really believe this is all....thanks!

#### **Brad Saucier**

Administrative Assistant Inspections Division City of Portland (207) 874-8703

>>> Jim Robinson <jim@mainelyplumbing.com> 4/26/2012 10:38 AM >>>

I will forward pictures in 10 minutes due you have the form to fill out or just need a check?

Jim Robinson, President

Mainely Plg. & Htg. Inc.

674 Main St

Gorham, Me

207-854-4969 office

207-831-1806 cell

www.mainelyplumbing.com

Celebrating over 25 Years of Plumbing & Heating Service

PHCC member for over 20 years

From: Brad Saucier [mailto:BJS@portlandmaine.gov]
Sent: Monday, April 23, 2012 10:44 AM
To: Jim Robinson
Cc: Donald McPherson; Gayle Guertin; Lannie Dobson
Subject: RE: 130-132 Pleasant St. install

Hi, I still have this permit waiting on my desk; not going anywhere....Is anything we're waiting for going to get sent? I know there was an attempt to forward the items, but it hasn't been sent yet...

### **Brad Saucier**

Administrative Assistant Inspections Division City of Portland (207) 874-8703

>>> Jim Robinson <jim@mainelyplumbing.com> 4/10/2012 4:03 PM >>>

No not yet I have some pictures I have to down load and send you but everything is on the back not visual from the street

#### Jim Robinson, President

Mainely Plg. & Htg. Inc.

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Celebrating over 25 Years of Plumbing & Heating Service

PHCC member for over 20 years

From: Brad Saucier [mailto:BJS@portlandmaine.gov] Sent: Tuesday, April 10, 2012 11:37 AM To: Jim Robinson Subject: RE: 130-132 Pleasant St. install Hi, was this sent out w/payment yet? I still have it waiting on my desk.

**Brad Saucier** Administrative Assistant Inspections Division City of Portland (207) 874-8703

>>> Jim Robinson <jim@mainelyplumbing.com> 4/3/2012 2:50 PM >>>

Hi Brian sorry about the delay but I thought that was covered in the drawings for the permit. We are installing everything on the back side of the roof not visible from the street. Taking picture now and will send over. And you need another \$50?

Jim Robinson, President

Mainely Plg. & Htg. Inc.

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Gorham, Me

207-854-4969 office

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Celebrating over 25 Years of Plumbing & Heating Service

PHCC member for over 20 years

From: Brad Saucier [mailto:BJS@portlandmaine.gov] Sent: Friday, March 23, 2012 11:39 AM To: Jim Robinson Subject: RE: 130-132 Pleasant St. install

Hi Jim

I just sent you a voice mail regarding the Historic review piece on the HVAC permit; and I stated I would send you the "application"....*well, there isn't one*, it's just another step in the permitting process (when the structure being worked on is in a Historic District in the City of Portland.)

I apologize, I was not sure this was in the historic district; this is a step the Zoning piece picks up.





#### 59TN6A

Infinity® Two-Stage, Variable Speed 4-Way Multipoise Condensing Gas Furnace Series 100



# **Product Data**



A11263

The 59TN6A Multipoise Variable-Speed Condensing Gas Furnace features the two-stage Infinity<sup>®</sup> System. The Comfort Heat Technology<sup>®</sup> two-stage gas system is at the heart of the comfort provided by this furnace, along with the Infinity variable-speed ECM blower motor, and two-speed inducer motor. With an Annual Fuel Utilization Efficiency (AFUE) of up to 96.7%, the Infinity two-stage gas furnace provides exceptional savings when compared to a standard furnace. This Infinity Gas Furnace also features 4-way multipoise installation flexibility, and is available in five model sizes. The 59TN6A can be vented for direct vent/two-pipe, ventilated combustion air, or single-pipe applications. A Carrier Infinity Control and Infinity Air Conditioner or Heat Pump can be used to form a complete Infinity System. All units meet California Air Quality Management District emission requirements. All sizes are design certified in Canada.

#### STANDARD FEATURES

- Infinity<sup>®</sup> System; compatible with single- and multiple-zone Infinity systems.
- All sizes meet ENERGY STAR® Version 4.0 criteria for gas furnaces: 95+ AFUE; AMACF electrical rating; 2% or less cabinet airflow leakage.
- Quiet operation. Compare for yourself at HVACpartners.com.
- Ideal height 35-in. (889 mm) cabinet: short enough for taller coils, but still allows enough room for service.
- Infinity Features—match with the Infinity Control for Infinity System benefits.
- Integral part of the Ideal Humidity System® Technology.

- Silicon Nitride Power Heat<sup>™</sup> Hot Surface Igniter.
- SmartEvap<sup>™</sup> technology helps control humidity levels in the home when used with a compatible humidity control system.
- ComfortFan<sup>™</sup> technology allows control of continuous fan speed from a compatible thermostat.
- External Media Filter Cabinet included.
- 4-way multipoise design for upflow, downflow or horizontal installation, with unique vent elbow and optional through-the-cabinet downflow venting capability.
- Variable-Speed blower motor, two-speed inducer motor, and two-stage gas valve.
- Self-diagnostics and extended diagnostic data through the Advanced Product Monitor (APM) accessory or Infinity User Interface.
- Adjustable blower speed for cooling, continuous fan, and dehumidification.
- Aluminized-steel primary heat exchanger.
- Stainless-steel condensing secondary heat exchanger.
- Propane convertible (See Accessory list).
- Factory-configured ready for upflow applications.
- Fully-insulated casing including blower section.
- Convenient Air Purifier and Humidifier connections.
- Direct-vent/sealed combustion, single-pipe venting or ventilated combustion air.
- · Installation flexibility: (sidewall or vertical vent).
- Residential installations may be eligible for consumer financing through the Retail Credit Program.
- Certified to leak 2% or less of nominal air conditioning CFM delivered when pressurized to 1-in. water column with all present air inlets, air outlets, and condensate drain port(s) sealed.

#### LIMITED WARRANTY\*

- 10 year parts and lifetime heat exchanger limited warranty to the original purchaser upon timely registration.
- Limited warranty period is five years for parts and twenty years for the heat exchanger if not registered within 90 days of installation.<sup>†</sup>
- \* For owner occupied, residential applications.

<sup>†</sup>Jurisdictions where warranty benefits cannot be conditioned on registration will receive registered limited warranty benefits.







Use of the AHRI Certified nu Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.



SAP ORDERING	DIM	ASIN ENSI (IN.)	IG IONS	RATE	ED HEAT PUT† (BT	ING UH)	н	EATING AI	RFLOW	COOLING		MEDIA CABINET	APPROX.
NO.	н	D	w	High	Low	AFUE	CFM‡ (Low Heating)	CFM (High Heating)	Rated High Heating ESP	Rated ESP SPEED)	SPEED)	SUPPLIED (IN.)	(LB)
59TN6A060V1714	35	30	17.5	58,000	38,000	96.3%	855	1075	0.12	510 - 1335	1/2	16	140
59TN6A080V1714	35	30	17.5	78,000	50,000	96.2%	1060	1500	0.15	490 - 1375	1/2	16	150
59TN6A080V2120	35	30	21.0	78,000	51,000	96.7%	1095	1345	0.15	750 - 1945	1	20	155
59TN6A100V2122	35	30	21.0	98,000	63,000	96.1%	1385	1575	0.20	715 - 2160	1	20	165
59TN6A120V2422	35	30	24.5	117,000	76,000	96.7%	1640	1820	0.20	885 - 2185	1	24	189

† Capacity in accordance with DOE test procedures. See rating plate.
 **‡** Heating CFM at factory default blower motor heating settings.

ESP - External Static Pressure

#### FEATURES AND BENEFITS

**Comfort Heat Technology® feature** — This feature with Adaptive Control is a proprietary function that promotes homeowner comfort through two stages of heating. This Carrier furnace offers a patented algorithm that continually monitors and adjusts furnace operation by looking at both current and past conditions to determine the most effective stage of heating and the amount of time to run each stage, every cycle.

Ideal Humidity System® Technology — The Ideal Humidity system actively controls both temperature and humidity in the home to provide the best comfort all year long. Other systems depend on heating or cooling demand to manage the moisture in the air. But, Ideal Humidity gives the homeowner the right amount of humidity day and night, even in mild weather. No other manufacturer can do this! Ideal Humidity saves energy, too. By keeping humidity under control, the homeowner can set their thermostat lower to stay comfortable and save energy.

SmartEvap<sup> $\sim$ </sup> Technology — When paired with a compatible thermostat, this dehumidification feature overrides the cooling blower off-delay when there is a call for dehumidification. By deactivating the blower off-delay, SmartEvap technology prevents condensate that remains on the coil after a dehumidification cycle from re-humidifying throughout the home. This results in reduced humidity and a more comfortable indoor environment for the homeowner.

Unlike competitive systems, SmartEvap technology only overrides the cooling blower off-delay when humidity control is needed. Once humidity is back in control, SmartEvap re-enables the energy-saving cooling blower off-delay.

ComfortFan <sup>™</sup> Technology — Sometimes the constant fan setting on a standard furnace system can actually reduce homeowner comfort by providing too much or too little air! Comfort Fan technology improves comfort all year long by allowing the homeowner to select the continuous fan speed of their choice using a compatible thermostat.

HYBRID HEAT The Dual Fuel System — This system can provide more control over your monthly energy bills by automatically selecting the most economical method of heating. With HYBRID HEAT components, our system automatically switches between the gas furnace and the electric heat pump as outside temperatures change to maintain greater efficiency and comfort than with any traditional single-source heating system. The heat pump also delivers high-efficiency cooling in the summer.

**Power Heat**<sup>™</sup> **Igniter** — Carrier's unique SiN igniter is not only physically robust but it is also electrically robust. It is capable of running at line voltage and does not require complex voltage regulators as do other brands. This unique feature further enhances the gas furnace reliability and continues Carrier's tradition of technology leadership and innovation in providing a reliable and durable product.

**Full-Featured, Communicating, Variable Speed Motors** — Our ECMs (Electronically Commutated Motors) provide variable-speed operation to optimize comfort levels in the home year round; features such as passive/active dehumidification, ramping profiles, constant air flow and quiet operation. They can provide cooling

match enhancements to increase the effective SEER of select Carrier air conditioner or heat pump system, and feature the highest efficiency of all indoor fan motors.

Reliable Heat Exchanger Design — The aluminized steel, clamshell primary heat exchanger was re-engineered to achieve greater efficiency out of a smaller size. The first two passes of the heat exchanger are based on the current 80% product, a design with more than ten years of field-proven performance and success. These innovations, paired with the continuation of a crimped, no-weld seam create an efficient, robust design for this essential component.

The condensing heat exchanger, a stainless steel fin and tube design, is positioned in the furnace to extract additional heat. Stainless steel coupling box componentry between heat exchangers has exceptional corrosion resistance in both natural gas and propane applications.

Media Filter Cabinet — Enhanced indoor air quality in the home is made easier with our media filter cabinet—a standard accessory on all deluxe furnaces. When installed as a part of the system, this cabinet allows for easy and convenient addition of a Carrier high efficiency air filter.

**4-Way Multipoise Design** — One model for all applications – there is no need to stock special downflow or horizontal models when one unit will do it all. The new heat exchanger design allows these units to achieve the certified AFUE in all positions.

**Direct or Single-pipe Venting, or Optional Ventilated** Combustion Air — This furnace can be installed as a 2-pipe (Direct Vent) furnace, in an optional ventilated combustion air application, or in single-pipe, non-direct vent applications. This provides added flexibility to meet diverse installation needs.

Sealed Combustion System — This furnace brings in combustion air from outside the furnace, which results in especially quiet operation. By sealing the entire combustion vestibule, the entire furnace can be made quieter, not just the burners.

**Insulated Casing** — Foil-faced insulation in the heat exchanger section of the casing minimizes heat loss. The acoustical insulation in the blower compartment reduces air and motor noise for quiet operation.

**Monoport Burners** — The burners are specially designed and finely tuned for smooth, quiet combustion and economical operation.

**Bottom Closure** — Factory-installed for side return; easily removable for bottom return. The multi-use bottom closure can also serve for roll-out protection in horizontal applications, and act as the bottom closure for the optional return air base accessory.

**Blower Access Panel Switch** — Automatically shuts off 115-v power to furnace whenever blower access panel is opened.

Quality Registration — Our furnaces are engineered and manufactured under an ISO 9001 registered quality system.

**Certifications** — This furnace is CSA (AGA and CGA) design certified for use with natural and propane gases. The furnace is factory-shipped for use with natural gas. A CSA listed gas conversion kit is required to convert furnace for use with propane gas. The efficiency is GAMA efficiency rating certified. This furnace meets California Air Quality Management District emission requirements.

# SPECIFICATIONS

<b>Heating Capacity and</b>	Efficiency		060-14	080-14	080-20	100-22	120-22
Input	High Heat	(BTUH)	60,000	80,000	80,000	100,000	120,000
input	Low Heat	(BTUH)	39,000	52,000	52,000	65,000	78,000
Output	High Heat	(BTUH)	58,000	78,000	78,000	98,000	117,000
Output	Low Heat	(BTUH)	38,000	50,000	51,000	63,000	76,000
Efficiency		AFUE % (ICS)	96.3	96.2	96.7	96.1	96.7
		High Heat	35 - 65	40 - 70	40 - 70	45 - 75	45 - 75
Certified Temperature		nigri neat	(19 - 36)	(22 - 39)	(22 - 39)	(25 - 42)	(25 - 42)
Rise Range °F (°C)		Low Heat	30 - 60 (17 - 33)	30 - 60 (17 - 33)	30 - 60 (17 - 33)	30 - 60 (17 - 33)	30 - 60 (17 - 33)
Airflow Capacity and	Blower Dat	a	060-14	080-14	080-20	100-22	120-22
Certified External Static		Heating	0.12	0.15	0.15	0.20	0.20
Pressure (in. w.c.)		Cooling	0.5	0.5	0.5	0.5	0.5
· · · · · · · · · · · · · · · · · · ·		High Heat	1075	1500	1345	1575	1820
Airflow Delivery		Low Heat	855	1060	1095	1385	1640
@ Rated ESP (CFM)		Cooling	1335	1375	1945	2160	2185
Casting Canasity (taga)		400 CEM/top	3	3.5	4.5	5	5.5
@ 400 350 CEM/top		350 CEM/ton	3.5	4	5.5	6	6
Direct Drive Motor Type		330 GFIW/(011	5.5	Electronic	ally Commutated M	Antor (ECM)	0
Direct-Drive Motor HP	9		1/2	1/2			1
Motor Full Load Amps			7.7	77	12.8	12.8	12.8
DPM Pango			1.1	1.1	300 - 1300	12.0	12.0
Spood Soloctions				Va	rishle (Communica	tina)	
Blower Wheel Dia x Wi	dth	in	11 x 8	11 × 8	11x10	11 x 10	11 x 11
Air Filtration System	201			Factor	y Supplied Media Field Supplied Filt	Cabinet	
Filter Used for Certified	Watt Data		KGAWF	1306UFR	KGAWF	1406UFR	KGAWF1506UFR
Electrical Data			060-14	080-14	080-20	100-22	120-22
Input Voltage		Volts-Hertz-Phase			115-60-1		
Operating Voltage Rang	ae	Min-Max			104-127		
Maximum Input Amps		Amps	8.5	8.5	13.6	13.7	13.7
Unit Ampacity		Amps	11.5	11.5	17.9	18.0	18.0
Minimum Wire Size		AWG	14	14	12	12	12
Maximum Wire Length		Feet	32	32	32	31	31
@ Minimum Wire Size		(M)	(9.8)	(9.8)	(9.8)	(9.4)	(9.4)
Maximum Fuse/Ckt Bkr (Time-Delay Type Reco ded)	ommen-	Amps	15	15	20	20	20
Transformer Capacity (	24vac				40 VA	1	
External Control Power	_	Heating			24.3 VA		
Available		Cooling			34.6 VA		
Controle			060-14	080-14	080-20	100-22	120-22
Gas Connection Size				300 17	1/2" - NPT		
Burners (Monoport)			3	4	4	5	6
Gas Valve (Redundant)	)	Manufacturer			White Rogers		
Minir	num Inlet G	Bas pressure (in. wc)			4.5		
Maxi	num inlet G	as pressure (in. wc)			13.6		
Gas Conversion Kit - N	atural to Pro	opane			KGANP5201VSF	5	
Gas Conversion Kit - P	ropane to N	atural			KGAPN4401VSF	)	
Manufactured (Mobile)	Home Kit			no	t approved for MH	use	
Ignition Device					Silicon Nitride		
Limit Control			180	170	200	180	160
Heating Blower Control	(Heating O	ff-Delay)		Adjustabl	e: 90, 120, 150, 18	30 seconds	
Cooling Blower Control	(Time Dela	y Relay)			90 seconds		
Communication System	1	,		li li	nfinity; Infinity Zoni	ng	
Thermostat Connection	S			R, W/W1, W	2 Y/Y2, Y1, G, Cor	m 24V, DHUM	
Accessory Connections	6			EAC (115vac);	HUM (24vac); 1-s	tg AC (via Y/Y2)	

#### MODEL NUMBER NOMENCLATURE



REPRESENTATIVE DRAWING ONLY, SOME MODELS MAY VARY IN APPEARANCE.

A11408

### ACCESSORIES

Venting Accessories		Part Number	Used With	Notes
Vent Kit - Through the Cabinet		KGADC0101BVC	All	1
Vent Terminal Conceptric	2-in.	KGAVT0701CVT	See Venting Tables	1
	3-in.	KGAVT0801CVT	See Venting Tables	1
Vent Terminel Breeket	2-in.	KGAVT0101BRA	See Venting Tables	1, 2
	3-in.	KGAVT0201BRA	See Venting Tables	1, 2
Condensate Drainage Accesso	ories	Part Number	Used With	Notes
Freeze Protect Kit - Heat Patch for Drain Trap		KGAHT0201CFP	All	7
Freeze Protect Kit - Heat Tape		KGAHT0101CFP	All	-
CPVC to PVC Drain Adapter - 1/2-in. CPVC to 3/4-in.	PVC	KGAAD0110PVC	All	-
Horizontal Trap Grommet for Direct Vent Application	ns	KGACK0101HCK	All DV Horizontal	-
Condensate Neutralizer Kit		P908-0001	All	6
Ductwork Adapter Accessori	es	Part Number	Used With	Notes
Furnace Base Kit for Combustible Floors		KGASB0201ALL	All	-
	No Offset	KGADA0101ALL	All	-

	No Offset	KGADA0101ALL	All	-
Coil Adapters Kits - Painted	Single Offsett	KGADA0201ALL	All	-
	Double Offset	KGADA0301ALL	All	
	14.2-in. wide	KGARP0301B14	14.2" Wide Furnaces	7
Rotum Air Rose (Unflow applications) Reinted	17.5-in. wide	KGARP0301B17	17.5" Wide Furnaces	7
Return An base (opnow applications) - Fainted	21-in. wide	KGARP0301B21	21" Wide Furnaces	7
	24.5-in. wide	KGARP0301B24	24.5" Wide Furnaces	7
IAO Device Duct Adeptors (side return) Rejeted	20-in IAQ to 16-in side return	KGAAD0101MEC	20"x25" IAQ Devices	7
IAQ Device Duci Adapters (side return) - Painted	24-in IAQ to 16-in side return	KGAAD0201MEC	24"x25" IAQ Devices	7

Gas Conversion Acc	essories	Part Number	Used With	Notes
Gas Conversion Kit - Nat to LP; Var-spd	Products	KGANP5201VSP	All	-
Gas Conversion Kit - LP to Nat; Var-spd	Products	KGAPN4401VSP	All	-
	#42 Natural Gas	KGAHA0150N42	All	4,6
	#43 Natural Gas	KGAHA0250N43	All	4,6
	#44 Natural Gas	KGAHA0350N44	All	4
	#45 Natural Gas	KGAHA0450N45	All	4
	#46 Natural Gas	KGAHA0550N46	All	4
C== 0=6== 1/4	#47 Natural Gas	KGAHA1550N47	All	4
Gas Onlice Kit	#48 Natural Gas	KGAHA1650N48	All	4
	#54 LP	KGAHA0650P54	All	4, 6
	#55 LP	KGAHA0750P55	All	4
	#56 LP	KGAHA0850P56	All	4,6
	1.25 mm LP	KGAHA5750125	All	4,6
	1.30 mm LP	KGAHA5750130	All	4,6

Control Accessories	Part Number	Used With	Notes
ECM Motor Simulator Kit	KGASD0301FMS	All	-
Advanced Product Monitor - APM	KGASD0301APM	All	-
Infinity Control User Interface	SYSTXCCUID01-V	All	-
Infinity Control Zoning User Interface	SYSTXCCUIZ01-V	All	-

IAQ Accessories		Part Number	Used With	Notes
Eller Deels (6 peels) - Mieshahle	16 x 25 x 1	KGAWF1306UFR	All	5
Filler Pack (6 pack) - Washable	24 x 25 x 1	KGAWF1506UFR	All	5
	16-in.	EXPXXFIL0016	EZXCAB1016	3, 5
EZ-Flex Filter	20-in.	EXPXXFIL0020	EZXCAB1020	3, 5
	24-in.	EXPXXFIL0024	EZXCAB1024	3, 5
	16-in.	EXPXXUNV0016	EZXCAB1016	3, 5
EZ-Flex Filter with End Caps	20-in.	EXPXXUNV0020	EZXCAB1020	3, 5
	24-in.	EXPXXUNV0024	EZXCAB1024	3, 5
	16-in.	FILXXCAR0016	FILCABXL1016	3, 5
Cartridge Media Filter	20-in.	FILXXCAR0020	FILCABXL1020	3, 5
	24.in.	FILXXCAR0024	FILCABXL2024	3, 5
Corrier Infinity Air Budfor	16 x 25	GAPAAXCC1625	Up to 1600 CFM	5
	20 x 25	GAPAAXCC2025	Up to 2000 CFM	5
Corrier Infinity Air Durifier Beelessment Filter	16 x 25	GAPCCCAR1625	GAPAAXCC1625-A08	5
Carrier Initiative Air Purmer Replacement Pitter	20 x 25	GAPCCCAR2025	GAPAAXCC2025-A08	5
Carrier Redermance Air Budfler	16 x 25	PGAPXX1625	Up to 1600 CFM	5, 7
Camer Penormance Air Puniler —	20 x 25	PGAPXX2025	Up to 2000 CFM	5, 7
Carrier Deformance Air Durifier Benlagement Filter	16 x 25	PGAPAXXCAR1625	GAPAAXCC1625	5,7
	20 x 25	PGAPAXXCAR2025	GAPAAXCC2025	5, 7

#### Notes:

1. CSA requires that a termination kit be used. See latest PD for pipe and kit size selection. The qualified installer or agency must use only Control and the state of the sector of the se

- Last 2 digits of Part Number indicate orifice size.
   Choose IAQ/filter assembly appropriate for the designed system airflow and static pressure. Use optional IAQ Device Duct Adapters as required.
- Available from Replacement Components group.
   Kit coming soon. Expected availability 2Q2012.

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#### AIR DELIVERY COOLING<sup>4</sup> AND HEATING AIR DELIVERY - CFM (Bottom Return<sup>5</sup> With Filter) (SW1-5 and SW4-3 set to OFF, except as indicated. See notes 1 and 2.)

Unit Size	Cla/C	F Switch S	ettinas				Extern	al Static	Pressure	e (ESP)				
	SWx-3	SWx-2	SWx-1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
			-2.11 NO.04		110, 1219	C. S. S. S.				1-1-744				
Clo Default:	OFF	OFF	OFF	1060	1070	1080	1080	1075	1065	1050	1035	1025	1010	
		1			1.55 1	en anno an								
CF Default:	OFF	OFF	OFF	545	530	520	525	510			See note	4		
						1					c.			
	OFF	OFF	ON	545	530	520	525	510	and the second		See note	4		
	OFF	ON	OFF	710	710	710	695	690	See r	note 4				
Cooling (SW2)	OFF	ON	ON	875	880	890	895	895	890	885	880	870	855	
0	ON	OFF	OFF	1060	1070	1080	1080	1075	1065	1050	1035	1025	1010	
Cont Fan	ON	OFF	ON	1235	1240	1250	1255	1255	1250	1230	1190	1155	1115	
(5003)	ON	ON	OFF	1235	1240	1250	1255	1255	1250	1230	1190	1155	1115	
	ON	ON	ON	1235	1240	1250	1255	1255	1250	1230	1190	1155	1115	
								1		North Martine				
Clg SW2:	Maxi	mum Clg Ai	irflow <sup>2</sup>	1425	1425	1405	1370	1335	1300	1260	1225	1190	1155	
And respersion						1.1.1	A							
Heating	Hig	h Heat Airf	ow <sup>3</sup>	1075	1085	1095	1095	1090	1080	1065	1050	1035	1020	
(SW1)	Lo	w Heat Airfl	ow <sup>3</sup>	855	855	860	870	870	865	860	855	845	785	
	-			1										
Unit Size	Cig/C	F Switch S	ettings				Extern	al Static	Pressure	e (ESP)	P)			
	SWx-3	SWx-2	SWx-1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
080-14						1								
Clg Default:	OFF	OFF	OFF	1055	1065	1080	1075	1065	1050	1045	1035	1025	1005	
				-										
CF Default:	OFF	OFF	OFF	520	505	505	495	490		:	See note	4		
				-										
	OFF	OFF	ON	520	505	505	495	490		:	See note	4		
	OFF	ON	OFF	665	685	680	660	665		1	See note	4	_	
Cooling (SW2)	OFF	ON	ON	885	895	905	900	900	895	885	875	860	845	
Cont Fan	ON	OFF	OFF	1055	1065	1080	1075	1065	1050	1045	1035	1025	1005	
(SW3)	ON	OFF	ON	1245	1245	1255	1255	1260	1255	1250	1235	1220	1185	
	ON	ON	OFF	1245	1245	1255	1255	1260	1255	1250	1235	1220	1185	
	ON	ON	ON	1245	1245	1255	1255	1260	1255	1250	1235	1220	1185	
													A DATE OF	
Clg SW2:	Maxi	mum Clg Ai	rflow <sup>2</sup>	1520	1485	1450	1415	1375	1335	1300	1265	1225	1190	
		1.202/1-1.5												
Heating	Hig	gh Heat Airfl	ow 3	1520	1485	1450	1415	1375	1335	1300	1265	1225	1190	
(SW1)	Lo	w Heat Airfl	ow 3	1055	1065	1080	1075	1065	1050	1045	1035	1025	1005	
Unit Size	Clg/C	F Switch S	ettings				Extern	al Static	Pressure	e (ESP)				
	SWx-3	SWx-2	SWx-1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
080-20	0.55	0.55	AFF				1700	Lance	1750		1705	1705	1005	
Clg Default:	OFF	OFF	OFF	1/45	1755	1755	1760	1755	1750	1/45	1/25	1705	1685	
05.0.0	OFF	OFF	OFF	700	740	750	705	750	C		1			
CF Default:	Urr	OFF	UFF	700	/10	750	725	750	Seer	10te 4				
	OFF	OFF	ON	700	710	750	705	750			Can mate	4		
	OFF	OFF	ON	700	710	750	725	750	Sec. r	acto A	See note	4		
0 11 (014/0)	OFF	ON	OFF	1045	1045	1060	1070	1070	1070	1000	1000	1090	1070	
Cont For	ON	OFF	OFF	1040	1045	1000	10/0	1070	1070	1095	1090	1000	1025	
(SW3)	ON	OFF		1210	1220	1240	1240	1200	1200	1400	1220	1200	1200	
(3110)	ON		OFF	1745	1755	1755	1760	1755	1750	1745	1705	1705	1695	
	ON			1745	1755	1755	1760	1755	1750	1745	1725	1705	1695	
				1/45	1755	1755	1700	1,00	1,00	1745	1720	1,00	1000	
Cla SW2	Mavi		rflow 2	1920	1920	1945	1945	1945	1960	1950	1940	1915	1900	
Cig Off2.	wickl	A and a second second		1.020	1020	.040					10-10	1010		
Heating	Hic	h Heat Airfl	ow 3	1340	1355	1370	1385	1380	1385	1400	1400	1385	1380	
(SW1)	Lo	w Heat Airfle	ow 3	1080	1115	1115	1120	1125	1135	1125	1120	1125	1110	
(=)								1						

See notes at end of table.

#### **AIR DELIVERY (CONTINUED)** COOLING<sup>4</sup> AND HEATING AIR DELIVERY - CFM (Bottom Return<sup>5</sup> With Filter) (SW1-5 and SW4-3 set to OFF, except as indicated. See notes 1 and 2.)

Unit Size	Cig/C	F Switch S	ettings				Extern	al Static	Static Pressure (ESP)					
	SWx-3	SWx-2	SWx-1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
10022	115.58-51	12 2410	ALCON MANY	40. He	11-1-1-1				- 55 - 7 - 6	370 A.S.			02200	
Clg Default:	OFF	OFF	OFF	1820	1825	1840	1845	1840	1835	1825	1805	1780	1770	
CF Default:	OFF	OFF	OFF	750	740	745	730	715		See note 4				
		1 12 2 2				-						•		
	OFF	OFF	ON	750	740	745	730	715		5	See note	4		
	OFF	ON	OFF	900	900	915	910	905			See note	4		
Cooling (SW2)	OFF	ON	ON	1070	1075	1095	1095	1090	1085	1095	1080	1065	1070	
Cont Fan	ON	OFF	OFF	1280	1285	1305	1305	1310	1305	1295	1300	1290	1285	
(SW3)	ON	OFF	ON	1440	1445	1465	1465	1470	1485	1480	1485	1475	1460	
	ON	ON	OFF	1820	1825	1840	1845	1840	1835	1825	1805	1780	1770	
	ON	ON	ON	2135	2140	2140	2135	2140	2130	2115	2100	2070	2015	
						Line of the second				**************************************				
Clg SW2:	Maxi	mum Clg Ai	rflow <sup>2</sup>	2160	2165	2175	2170	2160	2150	2135	2120	2065	2020	
												1		
Heating	Hig	gh Heat Airfl	ow <sup>3</sup>	1570	1575	1595	1595	1600	1605	1600	1600	1590	1575	
(SW1)	Lo	w Heat Airfl	ow <sup>3</sup>	1365	1385	1395	1395	1395	1400	1400	1405	1395	1380	
Unit Size	Clg/C	F Switch S	ettings				Extern	al Static	Pressure	e (ESP)				
	SWx-3	SWx-2	SWx-1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
120-22	11- 20 Mar	The state of the second										······································		
Clg Default:	OFF	OFF	OFF	1850	1855	1860	1855	1850	1830	1805	1775	1750	1730	
CF Default:	ÖFF	OFF	OFF	930	925	915	900	885			See note	4		
	Hat						1						-	
and a start of the second start	OFF	OFF	ON	765	745	740	705	680		3	See note	4		
	OFF	ON	OFF	930	925	915	900	885		5	See note	4		
Cooling (SW2)	OFF	ON	ON	1095	1100	1110	1105	1085		9	See note	4		
0	ON	OFF	OFF	1265	1255	1265	1280	1275	1285	1270	1260	1250	1230	
Cont Fan	ON	OFF	ON	1465	1455	1470	1465	1465	1470	1455	1450	1435	1415	
(3003)	ON	ON	OFF	1850	1855	1860	1855	1850	1830	1805	1775	1750	1730	
	ON	ON	ON	2200	2200	2200	2190	2185	2170	2145	2085	1990	1890	
Cla SW2:	Maxi	mum Cla Ai	rflow <sup>2</sup>	2200	2200	2200	2190	2185	2170	2145	2085	1990	1890	
	1919			J				1	1	L				
Heating	Hic	h Heat Airfl	ow <sup>3</sup>	1815	1820	1825	1820	1815	1795	1775	1745	1720	1700	
(SW1)	Lo	w Heat Airfl	ow <sup>3</sup>	1640	1640	1645	1650	1645	1645	1630	1620	1600	1580	

Nominal 350 CFM/ton cooling airflow is delivered with SW1-5 and SW4-3set to OFF. Set SW1-5 to ON for nominal 400 CFM/ton (+15% airflow).

Set SW4-3 to ON for nominal 325 CFM/ton (-7% airflow). Set both SW1-5 and SW4-3 to ON for nominal 370 CFM/ton (+7% airflow).

The above adjustments in airflow are subject to motor horsepower range/capacity.

2. Maximum cooling airflow is achieved when switches SW2-1, SW2-2, SW2-3 and SW1-5 are set to ON, and SW4-3 is set to OFF.

3. All heating CFM's are when low heat rise adjustment switch (SW1-3) and comfort/efficiency adjustment switch (SW1-4) are both set to OFF.

4. Ductwork must be sized for high-heating CFM within the operational range of ESP. Operation within the blank areas of the chart is not re-

commended because high-heat operation will be above 1.0 ESP.

5. All airflows on 21" (533 mm) casing size furnaces are 5% less on side return only installations.

6. Side returns for 24.5" (622 mm) casing sizes require two sides, or side and bottom, to allow sufficient airflow at the return of the furnace.

7. Airflows over 1800 CFM require bottom return, two-side return, or bottom and side return; otherwise excessive watt draws may result. A minimum filter size of 20" x 25" (508 x 635 mm) is required.

### MAXIMUM EQUIVALENT VENT LENGTH - FT. (M)

NOTE: Maximum Equivalent Vent Length (MEVL) includes standard and concentric vent termination and does NOT include elbows. Use Table 2 - Deductions from Maximum Equivalent Vent Length to determine allowable vent length for each application.

> Table 1 – Maximum Equivalent Vent Length - Ft. (M) 0 to 4500 Ft. (0 to 1370 M) Altitude

Altitude	Unit Size BTU/Hr	ITU/Hr DIRECT VENT (2-PIPE) AND NON-DIRECT VENT (1-PIPE)									
FT (M)					Ve	nt Pipe D	Diameter (i	n.) 1			
		1-1/2			2		2-1/2		3	4	
	40,000 <sup>3</sup>	50	(15.2)	210	(64.0)	250	(76.2)			LA L	
	60,000	30	(9.1)	135	(41.1)	235	(71.6)	265	(80.8)	The second	
0 to 2000	80,000	20	(6.1)	70	(21.3)	175	(53.3)	235	(71.6)	265	(80.8)
(0 to 610)	100,000	346.34		25	(7.6)	110	(33.5)	235	(71.6)	265	(80.8)
	120,000	1.000		Charles and		15	(4.6)	100	(30.5)	250	(76.2)
F	140,000 4	The W		111. Jul		10	(3.0)	90	(27.4)	210	(64.0)
	40,000	45	(13.7)	198	(60.4)	232	(70.7)	1.00		T.S.	How we want
	60,000	27	(8.2)	127	(38.7)	222	(67.7)	250	(76.2)		
2001 to 3000	80,000	17	(5.2)	64	(19.5)	165	(50.3)	222	(67.7)	249	(75.9)
(610 to 914)	100,000	The second		22	(6.7)	104	(31.7)	223	(68.0)	250	(76.2)
	120,000			1.2.3		11	(3.4)	93	(28.3)	237	(72.2)
	140,000 4	Harry Mar				3 h . T		80	(24.4)	185	(56.4)
	40,000	39	(11.9)	184	(56.1)	214	(65.2)	THE P		THE	- dama
F	60,000	23	(7.0)	119	(36.3)	210	(64.0)	235	(71.6)	MILLIN P	
3001 to 4000	80,000	15	(4.6)	59	(18.0)	155	(47.2)	210	(64.0)	232	(70.7)
(914 to 1219)	100,000	The second		19	(5.8)	98	(29.9)	211	(64.3)	236	(71.9)
	120,000	T WO Y		MALE		8	(2.4)	86	(26.2)	224	(68.3)
	140,000 4	The state		12/28		The second second		79	(24.1)	158	(48.2)
Í	40,000	36	(11.0)	177	(53.9)	205	(62.5)	IL N			
	60,000	21	(6.4)	115	(35.1)	204	(62.2)	228	(69.5)	10.	. ml. 303
4001 to 4500	80,000	14	(4.3)	56	(17.1)	150	(45.7)	202	(61.6)	224	(68.3)
1370)	100,000	10.4		17	(5.2)	94	(28.7)	205	(62.5)	229	(69.8)
10/0/	120,000		and and and a			<b>HULL</b>		83	(25.3)	217	(66.1)
	140,000 4		the second second	Harris .				69	(21.0)	146	(44.5)

NOTES: See notes at end of venting tables.







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#### MAXIMUM EQUIVALENT VENT LENGTH - FT. (M) (CONTINUED)

Pipe Diameter (in):	1-	1/2		2	2-	1/2		3		4
Mitered 90° Elbow	8	(2.4)	8	(2.4)	8	(2.4)	8	(2.4)	8	(2.4)
Medium Radius 90° Elbow	5	(1.5)	5	(1.5)	5	(1.5)	5	(1.5)	5	(1.5)
Long Radius 90° Elbow	3	(0.9)	3	(0.9)	3	(0.9)	3	(0.9)	3	(0.9)
Mitered 45° Elbow	4	(1.2)	4	(1.2)	4	(1.2)	4	(1.2)	4	(1.2)
Medium Radius 45° Elbow	2.5	(0.8)	2.5	(0.8)	2.5	(0.8)	2.5	(0.8)	2.5	(0.8)
Long Radius 45° Elbow	1.5	(0.5)	1.5	(0.5)	1.5	(0.5)	1.5	(0.5)	1.5	(0.5)
Tee	16	(4.9)	16	(4.9)	16	(4.9)	16	(4.9)	16	(4.9)
Concentric Vent Termination	12.05.0	ARTING A	0	(0.0)	1.00	the second	0	(0.0)	WAL DO	
Standard Vent Termination	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)

#### Table 2 - Deductions from Maximum Equivalent Vent Length - Ft. (M)

#### Venting System Length Calculations

The maximum length for each vent pipe (inlet or exhaust) equals the Maximum Equivalent Vent Length (MEVL) from Table 1 or Table 3 minus the number of elbows multiplied by the deduction for each elbow in Table 2.

Standard vent terminations and concentric vent terminations count for zero deductions.

See Vent Manufacturers' data for equivalent lengths of flexible vent piping.

DO NOT ASSUME that one foot of flexible vent pipe is equivalent to one foot of standard PVC vent pipe.

#### Example

A direct-vent 60,000 Btuh furnace installed at 2100 ft. (640 M) with 2-in.(51 mm) vent piping. Venting system includes, FOR EACH PIPE, (3) 90° long radius elbows, (2) 45° long radius elbows and a concentric vent kit.

Maximum Equivalent Vent Length				=	127 ft.	(From Table 1)
Deduct (3) 90 long radius	3	X	3 ft.	=	- 9 ft.	(From Table 2)
Deduct (2) 45 long radius	2	X	1.5 ft.	=	- 3 ft.	(From Table 2)
No deduction for Concentric Vent Kit			0 ft.	=	- 0 ft.	(From Table 2)
Maximum Vent Length				=	115 ft.	For EACH vent or inlet pipe

#### MAXIMUM EQUIVALENT VENT LENGTH - FT. (M) (CONTINUED)

NOTE: Maximum Equivalent Vent Length (MEVL) includes standard and concentric vent termination and does NOT include elbows. Use Table 2 - Deductions from Maximum Equivalent Vent Length to determine allowable vent length for each application.

		T		1	DIRECT VI	ENT (2-PI	IPE) AND	SINGLE-F	PIPE		
Altitude	Unit Size				Ve	ent Pipe I	Diameter (i	in.) 1			
FT (M) *		1.	-1/2		2	2-	-1/2		3		4
	40,000	33	(10.1)	171	(52.1)	196	(59.7)	NA-		NA.	
	60,000	20	(6.1)	111	(33.8)	198	(60.4)	221	(67.4)	10	
4501 to 5000	80,000	13	(4.0)	54	(16.5)	146	(44.5)	195	(59.4)	216	(65.8)
(137010	100,000	1.12.1		16	(4.9)	91	(27.7)	200	(61.0)	222	(67.7)
1024)	120,000	TRAT .		- 105		NUA:		80	(24.4)	211	(64.3)
	140,000 4	"ALA		116	1.1	No.		60	(18.3)	134	(40.8)
	40,000	27	(8.2)	158	(48.2)	179	(54.6)		Contraction of the local distribution of the	T RN	in the second
	60,000	16	(4.9)	103	(31.4)	186	(56.7)	207	(63.1)		CHARTER AND
5001 to 6000	80,000	11	(3.4)	49	(14.9)	137	(41.8)	183	(55.8)	200	(61.0)
(1524 to	100,000	- NA	-	12	(3.7)	85	(25.9)	188	(57.3)	208	(63.4)
1029)	120,000	140		1110		THE .	1	74	(22.6)	199	(60.7)
	140,000 4			Market Mark		1		50	(15.2)	109	(33.2)
	40,000	21	(6.4)	145	(44.2)	162	(49.4)	Main	A STATE OF THE OWNER	1.16	NICKOLS.
	60,000	13	(4.0)	96	(29.3)	174	(53.0)	194	(59.1)	THE WO	
6001 to 7000 - (1829 to -	80,000	5 243		44	(13.4)	120	(36.6)	171	(52.1)	185	(56.4)
	100,000	PART		10	(3.0)	79	(24.1)	178	(54.3)	195	(59.4)
2134)	120,000	THE T				THE R.	Conception in the second se	68	(20.7)	187	(57.0)
	140,000 4	F THE		The section				41	(12.5)	87	(26.5)
	40,000	15	(4.6)	133	(40.5)	146	(44.5)	- UR		D 1945	
	60,000	10	(3.0)	89	(27.1)	163	(49.7)	181	(55.2)		
7001 to 8000	80,000	and the same		40	(12.2)	120	(36.6)	159	(48.5)	170	(51.8)
(2134 to	100,000	17.285		and the		73	(22.3)	167	(50.9)	182	(55.5)
2430)	120,000	100		السالة		CE COM		62	(18.9)	175	(53.3)
	140,000 4	No.		The A		11.031		32	(9.8)	63	(19.2)
	40,000	10	(3.0)	121	(36.9)	130	(39.6)	100	And and a second	L.M.	- F
	60,000	7	(2.1)	82	(25.0)	152	(46.3)	168	(51.2)	101	
8001 to 9000	80,000	TAUS T		35	(10.7)	111	(33.8)	148	(45.1)	156	(47.5)
(2438 to	100,000	1.04		14.	1.1.1.1	67	(20.4)	157	(47.9)	170	(51.8)
2/43)	120,000	TR.S	and the second second	100		1.1.1		56	(17.1)	164	(50.0)
	140,000 4	THE P		10.8		1125		23	(7.0)	42	(12.8)
	40,000	5	(1.5)	110	(33.5)	115	(35.1)	3		MILLING.	
9001 to	60,000	THE P		76	(23.2)	142	(43.3)	156	(47.5)		
10,000	80,000	THE		31	(9.4)	103	(31.4)	137	(41.8)	142	(43.3)
(2743 to	100,000	AR.	-	200	I STATISTICS	62	(18.9)	147	(44.8)	157	(47.9)
3048)	120,000		-	The P	-	(Ela)		51	(15.5)	153	(46.6)
ŀ	140,000 4	Thur and			and the second second	10.00		16	(4.9)	20	(6.1)

#### Table 3 – Maximum Equivalent Vent Length – Ft. (M) 4501 to 10.000 Ft. (1371 to 3048 M) Altitude

NOTES:

1. Use only the vent pipe sizes shown for each furnace. It is NOT necessary to choose the smallest diameter pipe possible for venting.

2. NA - Not allowed. Pressure switch will not close, or flame disturbance may result.

3. Total equivalent vent lengths under 10' for 40,000 BTUH furnaces from 0 to 2000 ft. (0 to 610 M) above sea level require use of an outlet choke plate . Failure to use an outlet choke when required may result in flame disturbance or flame sense lockout.

4. Not all furnace families include 140,000 BTUH input models.

5. Vent sizing for Canadian installations over 4500 ft (1370 M) above sea level are subject to acceptance by local authorities having jurisdiction.

6. Size both the combustion air and vent pipe independently, then use the larger size for both pipes.

7. Assume the two 45° elbows equal one 90° elbow. Wide radius elbows are desirable and may be required in some cases.

8. Elbow and pipe sections within the furnace casing and at the vent termination should not be included in vent length or elbow count.

9. The minimum pipe length is 5 ft. (1.5 M) linear feet (meters) for all applications.

10. Use 3-in. (76 mm) diameter vent termination kit for installations requiring 4-in. (102 mm) diameter pipe.

		1	<u>г</u>	No	Insula	tion		<u> </u>	3/8-	in. (9.5	mm)		1	1/2-i	n. (12.7	mm)	
Two Stage	Winter Design	Pipe	Pipe Diameter-inches (mm)			Pipe Diameter-inches (mm)				Pipe Diameter-inches (mm)							
Heat Input Temp ° F (	Temp ° F (° C)	Length in	1.5	2.0	2.5	3.0	4.0	1.5	2.0	2.5	3.0	4.0	1.5	2.0	2.5	3.0	4.0
ricut input			(38)	(51)	(64)	(76)	(102)	(38)	(51)	(64)	(76)	(102)	(38)	(51)	(64)	(76)	(102)
		Ft.	40.0	35.0	35.0	Ň/A	N/A	50.0	104.0	94.0	N/A	N/A	50.0	122.0	110.0	N/A	N/A
-	20 (-10)	M	12.2	10.7	10.7	N/A	N/A	15.2	31.7	28.7	N/A	N/A	15.2	37.2	33.5	N/A	N/A
		Ft.	19.0	14.0	12.0	N/A	N/A	50.0	61.0	54.0	N/A	N/A	50.0	74.0	65.0	N/A	N/A
	0 (-20)	М	5.8	4.3	3.7	N/A	N/A	15.2	18.6	16.5	N/A	N/A	15.2	22.6	19.8	N/A	N/A
40000*		Ft.	9.0	3.0	1.0	N/A	N/A	50.0	41.0	35.0	N/A	N/A	50.0	51.0	43.0	N/A	N/A
	-20 (-30)	М	2.7	0.9	0.3	N/A	N/A	15.2	12.5	10.7	N/A	N/A	15.2	15.5	13.1	N/A	N/A
1	10 ( 10)	Ft.	3.0	0.0	0.0	N/A	N/A	39.0	29.0	23.0	N/A	N/A	48.0	37.0	30.0	N/A	N/A
	-40 (-40)	M	0.9	0.0	0.0	N/A	N/A	11.9	8.8	7.0	N/A	N/A	14.6	11.3	9.1	N/A	N/A
	00 ( 10)	Ft.	30.0	51.0	51.0	45.0	N/A	30.0	135.0	138.0	120.0	N/A	30.0	135.0	162.0	141.0	N/A
	20 (-10)	М	9.1	15.5	15.5	13.7	N/A	9.1	41.1	42.1	36.6	N/A	9.1	41.1	49.4	43.0	N/A
	0 ( 00)	Ft.	30.0	24.0	23.0	16.0	N/A	30.0	93.0	82.0	69.0	N/A	30.0	111.0	98.0	83.0	N/A
	0 (-20)	М	9.1	7.3	7.0	4.9	N/A	9.1	28.3	25.0	21.0	N/A	9.1	33.8	29.9	25.3	N/A
80000	20 ( 20)	Ft.	18.0	11.0	9.0	1.0	N/A	30.0	65.0	56.0	44.0	N/A	30.0	79.0	68.0	55.0	N/A
	-20 (-30)	М	5.5	3.4	2.7	0.3	N/A	9.1	19.8	17.1	13.4	N/A	9.1	24.1	20.7	16.8	N/A
	40 ( 40)	Ft.	10.0	3.0	0.0	0.0	N/A	30.0	48.0	40.0	29.0	N/A	30.0	59.0	50.0	38.0	N/A
	-40 (-40)	М	3.0	0.9	0,0	0.0	N/A	9.1	14.6	12.2	8.8	N/A	9.1	18.0	15.2	11.6	N/A
	20 (-10)	Ft.	20.0	64.0	64.0	56.0	47.0	20.0	70.0	173.0	150.0	125.0	20.0	70.0	175.0	177.0	147.0
		М	6.1	19.5	19.5	17,1	14.3	6.1	21.3	52.7	45.7	38.1	6.1	21.3	53.3	53.9	44.8
		Ft.	20.0	32.0	30.0	22.0	11.0	20.0	70.0	104.0	87.0	67.0	20.0	70.0	124.0	104.0	82.0
80000		M	6.1	9.8	9.1	6.7	3.4	6.1	21.3	31.7	26.5	20.4	6.1	21.3	37.8	31.7	25.0
00000	-20 (-30)	Ft.	20.0	17.0	14.0	6.0	0.0	20.0	70.0	71.0	57.0	40.0	20.0	70.0	86.0	71.0	52.0
1	20 ( 00)	м	6.1	5.2	4.3	1.8	0.0	6.1	21.3	21.6	17.4	12.2	6.1	21.3	26.2	21.6	15.8
	-40 (-40)	Ft.	15.0	7.0	5.0	0.0	0.0	20.0	61.0	52.0	40.0	24.0	20.0	70.0	64.0	50.0	33.0
	40 ( 40)	М	4.6	2.1	1.5	0.0	0.0	6.1	18.6	15.8	12.2	7.3	6.1	21.3	19.5	15.2	10.1
	20 (-10)	Ft.	N/A	25.0	79.0	70.0	59.0	N/A	25.0	110.0	186.0	155.0	N/A	25.0	110.0	219.0	182.0
	20(10)	M	N/A	7.6	24.1	21.3	18.0	N/A	7.6	33.5	56.7	47.2	N/A	7.6	33.5	66.8	55.5
	0 (-20)	Ft.	N/A	25.0	40.0	31.0	19.0	N/A	25.0	110.0	109.0	86.0	N/A	25.0	110.0	131.0	104.0
100000	- ( /	M	N/A	7.6	12.2	9.4	5.8	N/A	7.6	33.5	33.2	26.2	N/A	7.6	33.5	39.9	31.7
	-20 (-30)	Ft.	N/A	23.0	21.0	13.0	0.0	N/A	25.0	91.0	74.0	54.0	N/A	25.0	110.0	90.0	68.0
	( ,	M	N/A	7.0	6.4	4.0	0.0	N/A	7.6	27.7	22.6	16.5	N/A	7.6	33.5	27.4	20.7
	-40 (-40)	Ft.	N/A	13.0	10.0	1.0	0.0	N/A	25.0	68.0	53.0	35.0	N/A	25.0	83.0	66.0	46.0
		M	N/A	4.0	3.0	0.3	0.0	N/A	7.6	20.7	16.2	10.7	N/A	7.6	25.3	20.1	14.0
						1 45 5	1 = 1 =			1.000	105 -	105 5	11/1	L 11/2	1.5.5	100.0	0.00
	20 (-10)	Ft.	N/A	N/A	15.0	85.0	73.0	N/A	N/A	15.0	100.0	190.0	N/A	N/A	15.0	100.0	224.0
	- ( · -/	M	N/A	N/A	4.6	25.9	22.3	N/A	N/A	4.6	30.5	57.9	N/A	N/A	4.6	30.5	68.3
	0 (-20)	Ft.	N/A	N/A	15.0	41.0	29.0	N/A	N/A	15.0	100.0	109.0	N/A	N/A	15.0	100.0	131.0
120000	( == /	M	N/A	N/A	4.6	12.5	8.8	N/A	N/A	4.6	30.5	33.2	N/A	N/A	4.6	30.5	39.9
	-20 (-30)	Ft.	N/A	N/A	15.0	20.0	7.0	N/A	N/A	15.0	94.0	71.0	N/A	N/A	15.0	114.0	88.0
	- ( /	M	N/A	N/A	4.6	6.1	2.1	N/A	N/A	4.6	28.7	21.6	N/A	N/A	4.6	34.7	26.8
	-40 (-40)	Ft.	N/A	N/A	15.0	7.0	0.0	N/A	N/A	15.0	69.0	48.0	N/A	N/A	15.0	85.0	62.0
-40 (-40)	M	N/A	N/A	4.6	2.1	0.0	N/A	N/A	4.6	21.0	14.6	N/A	N/A	4.6	25.9	18.9	

#### MAXIMUM ALLOWABLE EXPOSED VENT PIPE LENGTH INSULATION TABLE - FT. / M

\* Not all families have these models. \* Pipe length (ft) specified for maximum pipe lengths located in unconditioned spaces. Pipes located in unconditioned space cannot exceed total allowable pipe length calculated from Table 1 or 3.

† Insulation thickness based on R value of 3.5 per in.

#### **RETURN AIR TEMPERATURE**

This furnace is designed for continuous return-air minimum temperature of  $60^{\circ}$ F ( $15^{\circ}$ C) db or intermittent operation down to  $55^{\circ}$ F ( $13^{\circ}$ C) db such as when used with a night setback thermometer. Return-air temperature must not exceed  $80^{\circ}$ F ( $27^{\circ}$ C) db. Failure to follow these return air limits may affect reliability of heat exchangers, motors and controls.



A10490

#### MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

POSITION	CLEARANCE	
Rear	0 (0 mm)	
Front (Combustion air openings in furnace and in structure)	1 in. (25 mm)	
Required for service	*24 in. (610 mm)	
All Sides of Supply Plenum	1 in. (25 mm)	
Sides	0 (0 mm)	
Vent	0 (0 mm)	
Top of Furnace	1 in. (25 mm)	

\* Recommended

#### **COMBUSTION-AIR PIPE FOR NON-DIRECT (1-PIPE) VENT APPLICATION**



A11487

#### **DOWNFLOW SUBBASE**





Assembled

Disassembled

	DIME	NSIONS (IN. /	MM)			
FURNACE	FURNACE IN DOWNFLOW	PLENUM	OPENING*	FLOOR (	HOLE NO. FOR	
CASING WIDTH	APPLICATION	A	В	С	D	ADJUSTMENT
17–1/2 (444.5)	Furnace with or without Cased Coil Assembly or Coil Box	15-1/8 (384.2)	19 (482.6)	16-3/4 (425.5)	20-3/8 (517.5)	3
21 (533.4)	Furnace with or without Cased Coil Assembly or Coil Box	18-5/8 (396.4)	19 (482.6)	20-1/4 (514.4)	20-3/8 (517.5)	2
24-1/2 (622.3)	Furnace with or without Cased Coil Assembly or Coil Box	22-1/8 (562.0)	19 (482.6)	23-3/4 (603.3)	20-3/8 (517.5)	1

\*The plenum should be constructed 1/4-in. (6 mm) smaller in width and depth than the plenum dimensions shown above.



#### **Concentric Vent Kit**

A93086

A concentric vent kit allows vent and combustion-air pipes to terminate through a single exit in a roof or side wall. One pipe runs inside the other allowing venting through the inner pipe and combustion air to be drawn in through the outer pipe.



**Downflow Subbase** 

A88202

One base fits all furnace sizes. The base is designed to be installed between the furnace and a combustible floor when no coil box is used or when a coil box other than a Carrier cased coil is used. It is CSA design certified for use with Carrier branded furnaces when installed in downflow applications.

# 59TN6A

#### **MEDIA FILTER CABINET**



**59TN6A** 

**TYPICAL WIRING SCHEMATIC** 



11400

A11401





A11589

15

59TN6A



Carrier Corporation 7310 W. Morris St. Indianapolis, IN 46231 Manufacturer's Certification Statement

The below identified natural gas or propane furnace either achieves an annual fuel utilization efficiency (AFUE) rate of not less than 95% or contains an advanced main air circulating fan which has an annual electricity use of no more than 2 percent of the total annual energy use of the furnace (as determined in the standard Department of Energy test procedures), and qualifies for the tax credit allowed under Section 25C of the Internal Revenue Code.

The make, model number, and other appropriate identifiers of the natural gas or propane furnace, as listed in the Air-Conditioning, Heating & Refrigeration Institute (AHRI) directory, are as follows:

Install Date	Eurnace Model	Up	Upflow		Downflow			ontal
		95 AFUE	AMACF <sup>1</sup>	95 AFUE	AMACF1		95 AFUE	AMACF
	59TN6A040V1714	Yes	Yes	Yes	Yes		Yes	Yes
	59TN6A060V1714	Yes	Yes	Yes	Yes		Yes	Yes
	59TN6A080V1714	Yes	Yes	Yes	Yes		Yes	Yes
	59TN6A080V2120	Yes	Yes	Yes	Yes		Yes	Yes
	59TN6A100V2120	Yes	Yes	Yes	Yes		Yes	Yes
	59TN6A120V2422	Yes	Yes	Yes	Yes		Yes	Yes

Make: Carrier

A taxpayer claiming a credit for Residential Energy Property Expenditures should retain this certification statement and the receipt of purchase as part of the taxpayer's records and should consult with a tax professional to determine eligibility for and application of the credit.

Under penalties of perjury, I declare that I have examined this certification statement, and to the best of my knowledge and belief, the facts presented are true, correct, and complete.

Christopher Nelson VP, Sales and Marketing



Strengthening a Remarkable City, Building a Community for Life . www.portlandmaine.gov

Receipts Details:

**Tender Information:** Check , Check Number: 30817 **Tender Amount:** 150.00

Receipt Header:

Cashier Id: bsaucier Receipt Date: 3/23/2012 Receipt Number: 42108

Receipt Details:

Referance ID:	5763	Fee Type:	BP-HVAC
Receipt Number:	0	Payment Date:	
Transaction Amount:	150.00	Charge Amount:	320.00
Job ID: Job ID: 201	1-08-2065-ALTCOMM - renovation	s & resoration of residence &	offices
Additional Comm	ents: 132 Pleasant 1 of 2 payme	ent	

Thank You for your Payment!



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Receipts Details:

Tender Information: Check, Check Number: 30797 Tender Amount: 170.00

Receipt Header:

Cashier Id: bsaucier Receipt Date: 3/23/2012 Receipt Number: 42109

Receipt Details:

Referance ID:	5763	Fee Type:	BP-HVAC
Receipt Number:	0	Payment Date:	
Transaction Amount:	170.00	Charge Amount:	170.00
Job ID: Job ID: 201	1-08-2065-ALTCOMM - renovations & resorat	tion of residence &	offices
Additional Comm	ents: 132 Pleasant; 2 of 2 payments		

Thank You for your Payment!